In the Claims:

1. (Currently Amended) A method of interfacing to a user of an isochronous device, comprising:

displaying a representation of a currently used portion of an isochronous processing capacity of a device, said user viewing said representation to interactively perform an analysis procedure of available system resources required to support an additional isochronous process, said representation also concurrently including projected resource usages for said additional isochronous process.

2. (Original) The method of claim 1, wherein the device is selected from an isochronous bus, an IEEE-1394 bus, a programmable computer performing isochronous processing, an isochronous data encoder, an isochronous data decoder, an isochronous data transcoder, a source of isochronous data, a sink of isochronous data, an audio/video hard disk drive (AVHDD), an isochronous data storage and retrieval device, and a device capable of concurrently performing at least one isochronous task.

3. (Original) The method of claim 1, further comprising:

receiving a user request to initiate a task, wherein the displaying is initiated when honoring the user request would exceed the isochronous processing capacity.

4. (Original) The method of claim 3 further comprising:

accepting a user selection of at least one of a plurality of isochronous tasks currently active on the device; and

sacrificing the selected task.

5. (Original) The method of claim 4 wherein the sacrificing is selected from terminating the selected task, suspending the selected task and performing the selected task in a degraded mode of operation.

6. (Original) The method of claim 1, wherein the representation graphically shows a relationship between the currently used portion and the isochronous processing capacity.

7. (Original) The method of claim 1, wherein the representation shows how the currently used portion is allocated among a plurality of isochronous tasks currently active on the device.

8. (Previously Presented) A method of interfacing to a user of an isochronous device, comprising:

receiving a user request to initiate a task;

displaying a representation of an isochronous processing capacity of a device, said user viewing said representation to interactively perform an analysis procedure of available system resources required to support said task, the displaying being initiated when honoring the user request would exceed the isochronous processing capacity, said representation including currently-allocated resources for previously-existing tasks projected resource usages for said task; and

accepting a user selection of a currently active isochronous task that is to be sacrificed in favor of the requested task.

9. (Original) The method of claim 8, wherein the device is selected from an isochronous bus, an IEEE-1394 bus, a programmable computer performing isochronous processing, an isochronous data encoder, an isochronous data decoder, an isochronous data transcoder, a source of isochronous data, a sink of isochronous data, an audio/video hard disk drive (AVHDD), a isochronous data storage and retrieval device, and a device capable of concurrently performing more than one isochronous task.

10. (Original) The method of claim 8 wherein the representation comprises a representation of a projected state of the isochronous processing capacity if the requested task were initiated.

11. (Original) The method of claim 8 wherein the sacrificing is selected from terminating the selected task, suspending the selected task and converting the selected task to an asynchronous mode of operation.

12. (Previously Presented) A method of indicating to a user a current usage of an isochronous device, comprising:

displaying a representation for a particular one of a plurality of tasks being handled by the device, said user viewing said representation to interactively perform an analysis procedure of available system resources required to support an additional isochronous process, the representation being of a portion of the isochronous capacity used by the particular task; and

displaying, when the representation is selected, a breakdown of a plurality of types of resources used by the particular task.

13. (Original) The method of claim 12, wherein the device is selected from an isochronous bus, an IEEE-1394 bus, a programmable computer performing isochronous processing, an isochronous data encoder, an isochronous data decoder, an isochronous data transcoder, a source of isochronous data, a sink of isochronous data, an audio/video hard disk drive (AVHDD), a isochronous data storage and retrieval device, and a device capable of concurrently performing at least one isochronous task.

14. (Currently Amended) A system for effectively managing resources in an electronic device, comprising:

a resource characterization coupled to said electronic device, said resource characterization corresponding to a requested process;

an interface manager configured to provide a user interface that includes resource information from said resource characterization, a system user viewing said user interface to interactively perform an analysis procedure of available system resources required to support said requested process, said user interface including projected resource usages for said requested process [[and]] <u>displayed in combination with</u> allocated resources for existing processes; and

means for controlling said interface manager.

15. (Original) The system of claim 14, wherein said electronic device is coupled to an electronic network that is implemented according to an IEEE Std 1394 serial bus standard.

16. (Original) The system of claim 14 wherein said electronic device is one of a consumer-electronics device, an audio-visual device, a set-top box, and a personal computer device.

17. (Original) The system of claim 14 wherein said requested process includes one or more time-sensitive isochronous processes for manipulating time-critical isochronous data, and wherein said means for controlling includes at least one of a processor device and dedicated logic.

18. (Currently Amended) The system of claim 14 wherein said interface manager displays said projected resource usages for said requested process in combination with said allocated resources for said existing processes to thereby allow said system user to interactively manage said resources in said electronic device by alternately selecting ~~one of~~ a request cancellation, an existing task cancellation, and a resource analysis procedure that is performed by referencing an expanded user interface.

19. (Original) The system of claim 14 wherein a system user generates a request to instantiate said requested process on said electronic device.

20. (Original) The system of claim 19 wherein an allocation manager evaluates said resource characterization in response to said request from said software module.

21. (Original) The system of claim 20 wherein said resource characterization includes one or more resource listings and one or more corresponding resource usage values that are required for a deterministic performance of said requested process.

22. (Original) The system of claim 20 wherein said resource characterization includes resource information regarding total available resources from said electronic device.

23. (Original) The system of claim 20 wherein said allocation manager compares resource usage values from said resource characterization and current available resource values from said electronic device to determine whether to authorize said requested process.

24. (Original) The system of claim 23 wherein said allocation manager authorizes said requested process whenever said resource usage values from said resource characterization are less than or equal to said current available resource values from said electronic device.

25. (Original) The system of claim 23 wherein said allocation manager denies said requested process whenever said resource usage values from said resource characterization are greater than said current available resource values from said electronic device.

26. (Original) The system of claim 24 wherein a picokernel in said electronic device instantiates and executes said requested process after said allocation manager authorizes said requested process.

27. (Original) The system of claim 14 wherein said interface manager displays current existing resource usages in a normal operational mode on said user interface.

28. (Original) The system of claim 27 wherein said user interface includes a current resource indicator that provides information regarding current existing resource usages on said electronic device.

29. (Original) The system of claim 14 wherein one of a system user and a network entity generates a request to instantiate a new task on said electronic device.

30. (Previously Presented) The system of claim 29 wherein said interface manager displays current existing resource usages and said projected resource usages on said user interface in a request mode, said projected resource usages including additional resources required for said new task.

31. (Previously Presented) The system of claim 30 wherein said user interface includes a projected resource indicator that provides information regarding said projected resource usages that include additional resources required for said new task.

32. (Original) The system of claim 30 wherein said user interface includes a request result field that provides information regarding whether sufficient additional resources are available to instantiate said new task.

33. (Original) The system of claim 30 wherein an allocation manager allocates resources to instantiate said new task when sufficient additional resources are available.

34. (Original) The system of claim 30 wherein said system user cancels said request whenever said user interface indicates that sufficient additional resources are not available.

35. (Original) The system of claim 30 wherein said system user cancels an existing task whenever said user interface indicates that sufficient additional resources are not available.

36. (Original) The system of claim 30 wherein said system user selects an expanded user interface whenever said user interface indicates that sufficient additional resources are not available.

37. (Previously Presented) The system of claim 36 wherein said expanded user interface comprises a task summary display that includes existing-task resource usage details and projected-task resource usage details.

38. (Original) The system of claim 36 wherein said expanded user interface comprises a task details display that includes individual resource details for one or more selected tasks.

39. (Original) The system of claim 36 wherein said system user performs a resource analysis procedure using said expanded user interface, and responsively cancels one or more existing tasks based on said resource analysis procedure.

40. (Previously Presented) A computer-readable medium comprising program instructions for managing resources in an electronic device by performing the steps of:

referencing a resource characterization with an interface manager, said resource characterization corresponding to a requested process;

generating a user interface with said interface manager based upon said resource characterization, said user interface including projected resource usages for said requested process and allocated resources for previously existing processes; and

controlling said interface manager with a processor that is coupled to said electronic device.

41. (Original) A system for managing resources in an electronic device, comprising:

means for maintaining a resource characterization, said resource characterization corresponding to a requested process;

means for generating a user interface based upon said resource characterization; and

means for controlling said means for generating a user interface.